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10/056,945	10/25/2001	David K. Platner	60130-1220/01MMRA0210-CIP	4965
26096 7590 11/27/2007 CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009			EXAMINER NGUYEN, TRINH T	
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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/056,945
Filing Date: October 25, 2001
Appellant(s): PLATNER, DAVID K.

MAILED

NOV 27 2007

GROUP 3600

David Wisz
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 9/19/07 appealing from the Office action
mailed 4/4/06.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,122,948	Moses	09-2000
6,247,346	Dickson, Jr.	06-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

DETAILED ACTION

Claim Rejections – 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1, 21 and 23 are rejected under 35 U.S.C. 102(a) as being anticipated by Moses (US 6122948).

For claim 1, Moses discloses that it is old and well known to form an axle assembly comprising the steps of:

a) providing a cylindrical hollow member having an end portion (see lines 21-22 of col. 2; note that "Initially, a tubular blank is provided" is equivalent to a cylindrical hollow member);

b) forming the end portion to provide a first generally circular end in cross-section (61);

c) forming a section of the cylindrical hollow member into a polygonal cross-section (60); and

d) welding a preformed kingpin boss (62) to the generally circular end (61).

For claim 21, Moses further discloses the polygonal cross-section into a substantially rectangular cross-section (60).

For claim 23, Moses further discloses the step d) is performed subsequent to the step c).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 22 is rejected under 35 U.S.C. 102(a) as being anticipated by Moses (US 6122948).

As described above, Moses discloses most of the claimed invention except for mentioning a height to width ratio of approximately 1.2. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Moses' method so as to include a height to width ratio of approximately 1.2, since it has been held that where routine testing and general experimental conditions are present, discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Also, since applicant did not provide a reason and/or showing any criticality as to why the height to width ratio has to be in a specific value of approximately 1.2 (see page 3 of the specification, Applicant only stated that "Preferably, a substantially

rectangular cross-section having a height to width ratio of approximately 1.2...”), it is believe that through trial and error during the testing procedure that one comes up with a desirable height to width ratio to meet the design criteria for forming an axle assembly.

5. Claims 4 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moses (US 6122948) in view of Dickson, Jr. (US 6247346).

For claim 4, as described above, Moses discloses most of the claimed invention except for mentioning the step of swaging a hollow tubular member into a desirable shape and/or form.

Dickson, Jr. teaches a similar method of forming an axle assembly wherein Dickson, Jr. discloses that it is old and well known to form a tubular member into a desirable shape and/or form by cold drawn or cold finished the tubular member (i.e., swaging) (see lines 13-20 of col. 6, lines 61-64 of col. 8, lines 1-5 of col. 9, and lines 25-27 of col. 9). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the method of Moses so as to include forming a hollow tubular member into a desirable shape and/or form by swaging, in a similar manner as taught in Dickson, Jr., since swaging is a notoriously old and well known technique used throughout the art of metal working/forming for shaping a tubular member into a desirable shape and/or form. With respect to the limitation that the step of swaging is performed subsequent to the step of c), it is noted that whether these steps are performed in a particular order is a matter of design choice wherein no stated problem is solved, or any new or unexpected result achieved by performing these steps

in the order as claimed versus the order taught by the prior art, and it appears that the invention would performed equally well with the steps conducted in any particular order.

For claim 20, as described above, Moses discloses most of the claimed invention except for providing the cylindrical hollow member with a preformed multi-wall thickness section.

Dickson, Jr. teaches a similar method of forming an axle assembly wherein Dickson, Jr. discloses that it is old and well known to form a cylindrical hollow member into a multi-wall thickness section (see lines 33-65 of col. 6). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the method of Moses so as to include forming a cylindrical hollow member into a multi-wall thickness section, in a similar manner as taught in Dickson, Jr., since to do so would provide a cylindrical hollow member having different strength along the length due to multi-wall thickness sections.

(10) Response to Argument

Appellant argues that Moses fails to disclose a polygonal cross-section, the Examiner disagrees. As shown in Figure 10, Moses discloses a section of the cylindrical hollow member (see lines 21-22 of col. 2; note that "Initially, a tubular blank is provided" is equivalent to a cylindrical hollow member) is formed into a polygonal cross-section (60).

Appellant further argues that the hydroforming process disclosed in Moses would not yield a polygonal cross-section as claimed by the Appellant, this argument is not found persuasive since Appellant has not submitted affidavit and/or evidence to show

as to why and how the hydroforming process disclosed in Moses would not yield a polygonal cross-section.

Appellant further argues that Moses fails to disclose a height to width ratio of approximately 1.2, Appellant's argument has been acknowledged. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Moses' method so as to include a height to width ratio of approximately 1.2, since it has been held that where routine testing and general experimental conditions are present, discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Also, since applicant did not provide a reason and/or showing any criticality as to why the height to width ratio has to be in a specific value of approximately 1.2 (see page 3 of the specification, Applicant only stated that "Preferably, a substantially rectangular cross-section having a height to width ratio of approximately 1.2..."), it is believe that through trial and error during the testing procedure that one comes up with a desirable height to width ratio to meet the design criteria for forming an axle assembly.

Appellant further argues that there is no teaching, suggestion, or motivation to modify Moses in view of Dickson, the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir.

1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). Furthermore, the Examiner maintains that there is motivation to combine the references. It is noted that both Moses and Dickson stand for the basic premise of providing a method for manufacturing a vehicular member by shaping a tubular member into a desirable vehicular member. However, Moses teaches the shaping by hydroforming process and Dickson teaches the shaping by swaging. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the method of Moses so as to include shaping the tubular member into a desirable shape and/or form by swaging, in a similar manner as taught in Dickson, Jr., since swaging is a notoriously old and well known technique used throughout the art of metal working/forming for shaping a tubular member into a desirable shape and/or form.

Appellant further argues that Dickson cannot be utilized to modify Moses as bending, drawing, or machining is not applicable to thin wall tubing necessary for hydroforming, this argument is not found persuasive since Appellant has not submitted affidavit and/or evidence to show as to why and how Dickson cannot be utilized as bending, drawing, or machining is not applicable to thin wall tubing necessary for hydroforming.

Finally, Appellant further argues that Moses hydroforming process cannot in any way change the wall thickness from the originating material nor be utilized with tubing of various wall thickness and that the multi-wall thickness materials are simply inapplicable to a hydroforming process, this argument is not found persuasive since Appellant has

not submitted affidavit and/or evidence to show as to why and how the multi-wall thickness materials are simply inapplicable to a hydroforming process.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Trinh Nguyen, Primary Ex. of AU3644 /Trinh Nguyen/

Conferees:

Meredith Petravick, Appeal Conference Specialist



Son Nguyen, Primary Ex. of AU3643 /STN/